

# YOUR MONEY



*A Review of Money  
in the United States*



## **YOUR MONEY**

A Review of Money in Use  
in the United States

by

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## INTRODUCTION

According to a recent survey of American families, adults hold an average of \$100 each in cash which they turn over 4.2 times a month in support of \$420 in expenditures. This same survey found that while all families use cash for expenditures, some families use only cash.

As an American, you are no doubt curious about your cash, or currency. For example, you may wonder how paper money and coins get into circulation and what happens to them when they wear out. You may want to know more about the numbers, seals, and emblems that are printed on paper money, and about the printing process itself.

As an informed U.S. citizen, you should know the functions and definitions of money. You should know about the roles of the Treasury and the Federal Reserve and about how deposit money is created. Above all, you should know what determines the value of your money. This booklet should add to your knowledge.



## **FUNCTIONS OF MONEY**

Money is a medium of exchange that is generally acceptable by all persons within the immediate community. For you, the immediate community is the United States and its territories and possessions. In addition to serving as a medium of exchange, money serves as:

- a store of value (your savings)
- a unit of account (your means of comparing prices of goods and services)
- a standard of deferred payment (your claim on goods and services that can be exercised now or in the future)

## **KEY LEGISLATION**

The Constitution outlines only the broadest provisions for United States money, assigning ultimate power "to coin money" and "regulate the value thereof" to Congress. Over the years, Congress has deliberated upon and enacted more than 60 key statutes to shape our present monetary system.

The earliest monetary statute, the so-called "Mint Act" of April 2, 1792, established that "the money of account of the United States shall be expressed in dollars or units" and that principal subsidiary parts of the dollar be expressed in "dimes (sic) or tenths, cents or hundredths, and milles or thousandths" and that "all accounts in the public offices and all proceedings in the courts of the United States shall be kept and had in conformity to this regulation." By this action, the United States became the first of the present community of nations to adopt the decimal system for its currency. Another key statute was the Federal Reserve Act of 1913 (and its various amendments), which created the Federal Reserve System and, among other things, directed the Federal Reserve to manage the nation's supply of money and credit in such a way as to help achieve the basic economic goals of high employment and stable prices.

## **POLICY DEFINITIONS OF MONEY**

As part of its responsibility for the nation's monetary system the Federal Reserve System periodically publishes the definitions of money. The most recently published definitions attempt to distinguish between money that is oriented toward transactions and money that includes other highly liquid balances that serve a variety of purposes. The narrowest of these



definitions—M1—is designed to include balances that are commonly used in payment for purchases of goods and services—that is, assets thought to be held primarily to carry out transactions. Thus M1 consists of currency, travelers checks issued by nonbanking firms, demand deposits, and interest-bearing accounts with unlimited checking authority. In addition to its reference as the narrowest definition of money, M1 is also known as the narrowest measure of our money stock. Other measures of our money stock are referred to as M2 and M3.\*

## **Legal Tender**

Even though money can be defined in many ways, only the United States government has the authority to determine which money will constitute legal tender. Legal tender is money that must be accepted for the payment of all debts unless the debt instrument itself specifically calls for another form of payment, such as, for example, the delivery of commodities. Of the various components defined as money in M1, only currency is regarded as legal tender in the United States. Currency, often referred to as “cash,” is also distinguished from other forms of money in that it may circulate freely from person to person without need for endorsement or reference to the character or credit of the bearer.

## **Other M1 Money**

While demand deposits, travelers checks, and interest-bearing accounts with unlimited checking authority are not legal tender, they are usually acceptable in payment for purchases of goods and services. Like currency, these particular components of M1 are the most liquid assets a person can have. In this sense, “liquid” refers to an asset that can be turned into the generally acceptable medium of exchange quickly without taking a loss. Two of these other components, namely travelers checks and interest-bearing accounts with unlimited checking authority, reflect the growing importance in the monetary system of depository institutions and certain other intermediaries as issuers of claims held by the public in lieu of deposits.

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\*M2 = components of M1 + savings and small-denomination time deposits + money market deposit accounts + shares in money market mutual funds (other than those restricted to institutional investors) + overnight repurchase agreements (RPs) and certain overnight Eurodollar deposits. M3 = components of M2 + large-denomination time deposits + shares in money market mutual funds restricted to institutional investors + large-denomination term RPs and certain term Eurodollar deposits.

## **PAPER MONEY**

Many types of paper money have been issued during our nation's history. Regardless of when it was first issued, all paper money authorized by our federal government is still legal tender.

### **Federal Reserve Notes**

By far the largest proportion of our paper money in circulation—over 99 percent—consists of Federal Reserve notes. The 12 Federal Reserve Banks are currently authorized to issue notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50, and \$100. Before 1945 Federal Reserve notes were also printed in denominations of \$500, \$1,000, \$5,000, and \$10,000. On July 14, 1969, denominations of \$500 and larger were ordered retired. The Treasury seal and serial numbers on Federal Reserve notes are printed in green.

### **United States Notes**

These notes make up less than one percent of our paper money. Since 1969, only the \$100 denomination has been issued. Prior to 1969, \$2 and \$5 denominations were also issued. The \$2 bill was discontinued in 1966, and the \$5 bill was discontinued in 1968. The Treasury seal and serial numbers on U.S. notes are printed in red.

### **Other Types of Paper Money**

Many other types of paper money have been issued over the years. National Currency notes were issued by national banks until 1935. Gold certificates, paper money that could be exchanged for gold, were issued until 1934. Silver certificates were issued until 1957. One-dollar silver certificates made up most of the \$1 bills until the first \$1 Federal Reserve notes were issued in 1963.

### **Size**

All currently issued United States paper money is of uniform size regardless of type or denomination. Today's notes measure approximately 6.14 x 2.61 inches, are about .0043 inches thick, and weigh .03 troy ounces. Prior to July 1929, most notes measured 7.42 by 3.125 inches and, because of their large size, were often referred to as "blanket bills."

## Portraits and Emblems

The portrait of a noted American statesman and certain emblems are features of the design of each denomination. Portraits and emblems on modern (small) size notes are:

Denomination	Face	Reverse
\$ 1	Washington	Ornate One and U.S. Seal
\$ 2	Jefferson	Monticello* Signing of Declaration of Independence**
\$ 5	Lincoln	Lincoln Memorial
\$ 10	Hamilton	U.S. Treasury
\$ 20	Jackson	White House
\$ 50	Grant	U.S. Capitol
\$ 100	Franklin	Independence Hall
\$ 500	McKinley	Ornate Five Hundred
\$ 1,000	Cleveland	Ornate One Thousand
\$ 5,000	Madison	Ornate Five Thousand
\$10,000	Chase	Ornate Ten Thousand

\*United States notes  
\*\*Federal Reserve notes

## Seal

All denominations of paper money carry the Treasury seal. Prior to modernization of the design in 1968, the seal was encircled with the Latin inscription, *Thesaur. Amer. Septent. Sigil.*, an abbreviation of *Thesauri Americae Septentrionalis Sigillum*, meaning "The Seal of the Treasury of North America." The redesigned seal bears the legend, "Department of the Treasury" and "1789," the year the Treasury came into being.

Since 1935, the most familiar denomination of paper money—the \$1 note—has also carried the Great Seal of the United States on its reverse. The Latin inscription, *E Pluribus Unum*—literally, "Out of Many, One"—appears on the seal's obverse. On the seal's reverse are two inscriptions: *Annuat Coeptis*, meaning "He Has Favored Our Undertakings," and *Novus Ordo Seclorum*, meaning "A New Order of the Ages." Also on the reverse, in Roman numerals on the base of an unfinished pyramid, is the year the Declaration of Independence was signed.



## Serial Number

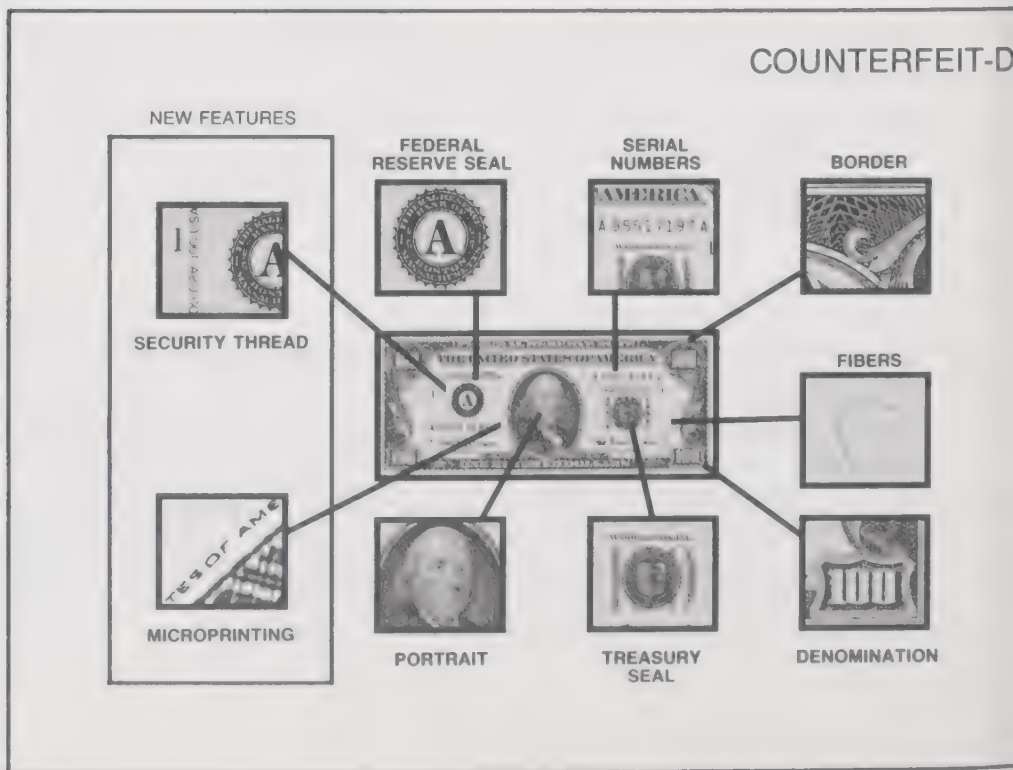
The serial number appears in two places on the face of all United States paper money—in the upper right and lower left portions. Serial numbers on all paper money now in common use are always in eight digits. They also have a prefix letter and a suffix letter, unless they are “star” notes (replacements for notes damaged in the printing process or found on inspection at the Bureau to be defective).

The letters are considered a part of the number. Thus, on United States notes the first note of any denomination in a new series will have the serial number A 00000001 A; the second, A 00000002 A; and so on.

## The National Motto

Legislation approved by Congress on July 11, 1955, instructed the Secretary of the Treasury to include the inscription “In God We Trust” on all United States currency—paper money as well as coins. The following year Congress adopted “In God We Trust” as the national motto.

The inscription made its advent on a bronze two-cent piece in 1864. The first notes to bear the national motto were \$1 silver certificates paid into circulation on October 1, 1957. Today, the motto is included in the design of all coins and all classes and denominations of paper money.





## MAKING OF PAPER MONEY

All United States paper money is produced in Washington, D.C., by the Bureau of Engraving and Printing, which also designs, engraves, and prints other official items such as postage and tax stamps. The Bureau operates 16 presses that print 8,500 notes per hour. Some of the presses are in operation 24 hours a day.

Highly skilled engravers cut the individual features of a note design into steel dies. Multiple plastic images of the various components are fitted into a 32-bill plate configuration in the first of a series of operations leading to the manufacture of press plates. For security reasons, each feature such as the portrait, vignette, ornaments, lettering, and script is the work of a separate engraver specially trained in his particular facet of the art. The intricate lacy design and borders are produced by means of a geometric lathe.

The Bureau takes all possible precautionary measures against counterfeiting. It uses, for example, a specially produced and distinctive paper and manufactures its own inks according to secret formulas. For anyone to manufacture or use a similar type of paper, except by special authority, is illegal. In 1991, new security features—a security thread and microprinting—were introduced on the \$100 bill. The two new features will be incorporated in the designs of other denominations in the coming years.

## RENT FEATURES

### **Security Thread**

An embedded polyester strip with "USA" and the denomination (e.g., "USA 100") is repeated in an up-and-down pattern. It is visible when held to light.

### **Microprinting**

"The United States of America" is printed repeatedly around the portrait. The letters are too small to be read without a magnifier or for distinct copier reproduction.

### **Portrait**

The lifelike portrait is distinct from the fine, screenlike background.

### **Treasury Seal**

The seal's sawtooth points are sharp, distinct, and unbroken. The color is the same as that of the two serial numbers.

### **Denomination**

The note's value appears on the corners and over the Treasury seal.

### **Fibers**

Tiny red and blue fibers are embedded in the paper.

### **Border**

The border consists of fine lines and a lacy, weblike design that is distinct and unbroken.

### **Serial Numbers**

The two serial numbers are distinctively styled and evenly spaced. The color is the same as in the Treasury seal. No two notes of the same series and denomination have the same serial number.

### **Federal Reserve Seal**

The seal identifies the issuing Federal Reserve Bank. The code letter is the same as the first letter in the two serial numbers.

## ISSUANCE OF FEDERAL RESERVE NOTES

Before being issued to the public, Federal Reserve notes must be secured by legally authorized collateral, most of which is in the form of U.S. government and federal agency securities held by the Federal Reserve Banks.

### FEDERAL RESERVE DISTRICT MAP



The Federal Reserve Banks issue Federal Reserve notes according to the need in their regions. You can easily tell which Federal Reserve Bank authorized a particular note by looking at the Bank seal, printed in black at the left of the portrait and showing the name of the Bank in the circle. The letter corresponding to the district number stands in the center of the seal. The district number appears on both ends of the face of the note above and below the center area just inside the engraved border.

For example, the Federal Reserve Bank of Richmond is headquarters for the Fifth District. Notes issued by that Bank, therefore, carry the fifth letter of the alphabet, E, in the center of the Bank seal and the number 5 on the left and right, above and below the center area. The New York Bank is headquarters for the Second District; consequently, notes issued by that Bank have the second letter of the alphabet, B, in the seal and the number 2 in the four locations mentioned above.

Federal Reserve Banks pay 2.5 cents for each note produced by the Bureau of Engraving and Printing. This price changes when labor, materials, and operating costs rise or decline.

## COINS

In the United States, coins are a "convenience" money for daily transactions. Denominations in use today are the dollar (100 cents), half-dollar (50 cents), quarter (25 cents), dime (10 cents), nickel (5 cents), and penny (1 cent). Coins are produced by the Bureau of the Mint, also known simply as the Mint. The Mint is a division of the Treasury Department and is headed by the Director of the Mint, whose offices are in Washington, D.C. Operating mints are located in Philadelphia, Denver, and San Francisco.

### **Susan B. Anthony Dollar**

In July of 1979, the U.S. Mint released a new \$1 coin that is less cumbersome to use than the old Eisenhower dollar coin. The new dollar coin carries the profile of Susan B. Anthony, an early crusader for equal rights for women. This is the first time that a portrait of an American woman rather than a symbolic woman has appeared on a circulating U.S. coin. On its reverse side, the coin depicts the symbolic eagle of Apollo 11 landing on the moon, a design which originally appeared on the Eisenhower dollar coin.

### **Gold Bullion Coins**

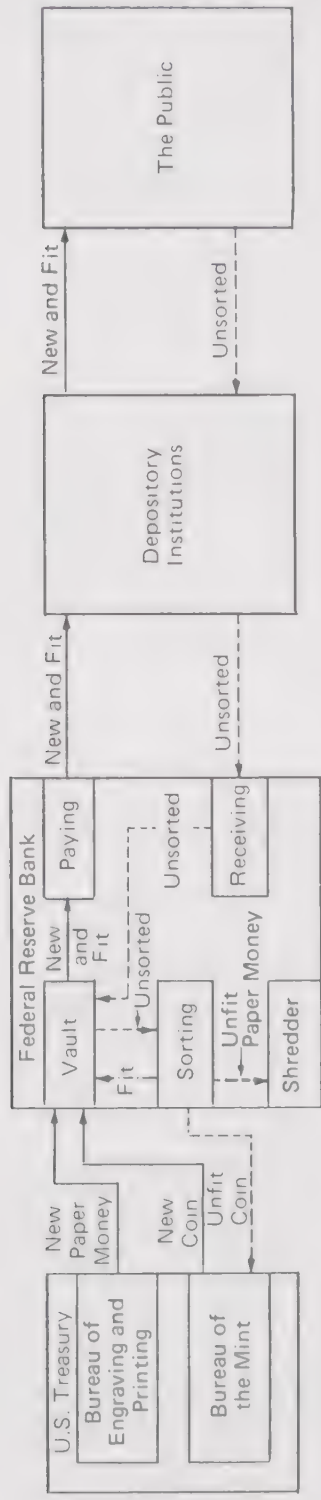
Legislation enacted in 1985 authorized the U.S. Treasury to mint gold coins other than limited-edition commemoratives for the first time since 1933. The coins have nominal face values of \$5, \$10, \$20, and \$50 and are legal tender.

These gold bullion coins are sold by the Treasury at prices that fluctuate with the gold market and are not tied to the nominal dollar designation on the coins. The coins have special appeal for investors and collectors.

### **Silver Bullion Coins**

Silver bullion coins, authorized in July 1985 and introduced in October 1986, have a face value of \$1 and are legal tender for that amount. It is unlikely that these coins will be used as pocket money because their purchase price reflects the market value of their silver content and includes a small premium. Silver American Eagles, as these coins are called, are sold by coin shops, precious metals dealers, brokerage firms, banks, and savings and loan associations. Silver bullion coins, like gold bullion coins, are of special interest to investors and collectors.

**FLOW OF CURRENCY**  
into (—→) and out of (---→) circulation





## **SUPPLY AND DEMAND**

The public's need for money changes from time to time. The need for money may increase or decrease on different days of the week, on certain days of the month, and during different seasons. In agricultural regions the need for money is heavy during seasons when crops are being harvested. Throughout the country, the need for money increases immediately before holidays such as Easter, Labor Day, and Thanksgiving because these are periods when many people take trips, buy clothing, or for other reasons spend more money than usual. There is an extraordinary increase of currency in circulation in the days immediately before Christmas when money is used for shopping. After these holiday periods, excess money is redeposited in banks by merchants and other owners of businesses with whom the money has been spent. These banks, in turn, send the money to the Federal Reserve Banks.

In addition to daily, monthly, and seasonal changes in the need for money, there are changes in need that reflect changes in economic conditions. When economic activity is increasing, the need for money increases. When economic activity slows down, the need for money declines. From time to time, growth in population and changes in public buying habits contribute to changes in economic activity, which in turn contributes to changes in the need for currency.

## **HOW MONEY GETS INTO CIRCULATION**

An important function of the Federal Reserve System is to ensure that the economy has enough paper money and coin to meet public demand. Paper money and coin are placed in or retired from circulation by the Federal Reserve Banks, which use depository institutions as channels of distribution. When banks and other depository institutions need to replenish their supply of paper money and coin, they order the cash from the Federal Reserve Bank or Branch in their area, and the face value of that cash is charged to their accounts at the Federal Reserve. When the public's need for paper money and coin declines and depository institutions return excess cash to a Federal Reserve Bank, the value of the money returned by a given institution is credited to the account of that depository institution.

## UNFIT MONEY

### Disposal

Like any other commodity, money wears out from handling and is sometimes accidentally damaged or destroyed. The average life of a \$1 bill, for example, is about 17 or 18 months. Larger denominations usually last longer because they do not circulate as often as the \$1 bill. The Treasury asks banks and other depository institutions to send old, worn, torn, or soiled money to a Federal Reserve Bank to be exchanged for new.

As the Federal Reserve Banks receive money from commercial banks and other depository institutions, they count and sort it according to whether it is "fit" or "unfit" and store the fit (reusable) money in their vaults until it is needed. Paper money and coin that are unfit (not reusable) are retired. The retired, unfit paper money is automatically destroyed by machines that shred it to one-sixteenth of an inch. Approximately one-third of the bills sorted are rejected as unfit. Damaged and worn coins are returned to the Philadelphia Mint for melting and making new coins.

### Redemption of Damaged Money

Paper money that has been mutilated or partially destroyed may in some cases be redeemed at full face value. If clearly more than half of a note remains intact, it may be redeemed at its full face value by Federal Reserve Banks and their Branches. More seriously damaged paper money must be sent to the Department of the Treasury for redemption. If less than half of its original area still exists, it will not be redeemed unless the Treasurer of the United States is satisfied, on the basis of evidence submitted, that the remainder of the note was totally destroyed. (Until January 1, 1971, a mutilated note could be redeemed at full face value only if clearly more than three-fifths of its original area remained intact; portions clearly larger than two-fifths but less than three-fifths of the original were redeemable at half of their face value. Prior to 1889, mutilated paper money was sometimes redeemed at discounts of 10 percent, 20 percent, and so on, depending on the size of the fragments presented.)

Mutilated coins also may be redeemed. Their redemption value depends on their type, denomination, and the extent of mutilation. Redemption of mutilated coins is handled by the United States Mint in Philadelphia. Coins that are merely bent or worn slick through natural wear are not considered mutilated and are exchangeable at full face value.

## HOW SOME MONEY IS CREATED

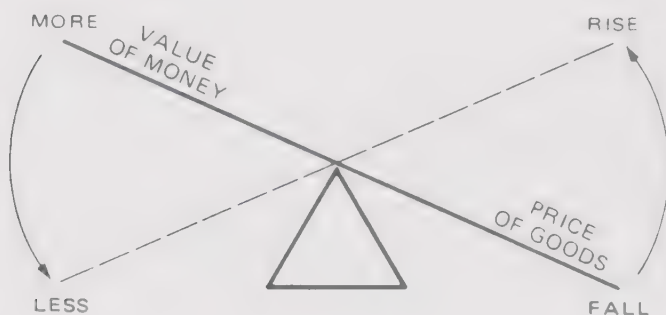
While the currency component of U.S. money is made at the Bureau of Engraving and Printing and the Mint, some money is actually created through the operations and activities of financial depository institutions. These operations and activities are often referred to as the "money-creating process."

To understand the money-creating process, one must first recognize that depository institutions—commercial banks and thrifts—operate under a fractional-reserve system. This means that each institution is required by federal law to hold reserves equal to a certain fraction of specified types of deposits. These required reserves can be held either as vault cash (currency on hand) or as deposits at a Federal Reserve Bank. If a bank receives a deposit, the amount of this deposit in excess of required reserves constitutes excess reserves for the bank and is available for loans. Because the bulk of a bank's loans are made by simply crediting the customer-borrower's deposit account, the loan in fact becomes new deposit money. When customer-borrowers write checks on these accounts and the payees deposit the checks with other banks, the process of setting aside required reserves and lending excess reserves is repeated. This process of money creation continues until total deposits amount to a multiple of the reserves supplied to the banking system by the Federal Reserve, where the multiple is determined by the required reserve ratio. The illustration below shows how an initial deposit of a \$1,000 social security check at a commercial bank can generate an additional \$4,000 of deposits in the banking system under the assumption of a reserve ratio of 20 percent.

Stage	Amount Deposited	Required Reserves	Excess Reserves	Loans and Investment Money Created
Initial Deposit	\$1,000.00	\$ 200.00	\$ 800.00	\$ 800.00
Stage 1	800.00	160.00	640.00	640.00
Stage 2	640.00	128.00	512.00	512.00
Stage 3	512.00	102.40	409.60	409.60
Stage 4	409.60	81.92	327.68	327.68
Stage 5	327.68	65.54	262.14	262.14
Stage 6	262.14	52.43	209.71	209.71
Stage 7	209.71	41.94	167.77	167.77
Stage 8	167.77	33.55	134.22	134.22
Stage 9	134.22	26.84	107.38	107.38
All Others	536.88	107.38	429.50	429.50
Total	\$5,000.00	\$1,000.00	\$4,000.00	\$4,000.00

## VALUE OF MONEY

Money is actually a substitute for goods and services. Thus money's real value can be measured only in terms of the amount of goods and services that it will buy. This means that when prices of goods and services rise, money has less value. When prices fall, money has more value. Put very simply, one can say that the value of money goes in the opposite direction of the general price level.



Money, like anything else, derives its value from its scarcity. Assuming a constant rate of use, if the volume of money grows more rapidly than the rate at which goods and services are produced, prices will rise. This will happen because there will be more money to spend than goods and services to buy at prevailing prices. On the other hand, if the growth in the money supply does not keep pace with the economy's current production of goods and services, prices will fall, and the value of money will increase.

## CONTROL OF MONEY

Money is a medium of exchange. Credit is the postponement of the payment of money. The supply of these two factors available at any specific time can have an effect on our economy. Through its ability to influence the supply of money and credit in the economy, the Federal Reserve System contributes to the attainment of the nation's economic goals. As the nation's central bank, the Federal Reserve attempts to ensure that growth in money and credit over the long run is sufficient to encourage growth in the economy in line with its potential and with reasonable price stability.



## THE MONEY MUSEUM

The Money Museum of the Federal Reserve Bank of Richmond houses a 575-specimen collection representative of the monies of our own land, of civilizations far distant in time and place, and of primitive societies. Among the primitive forms of money, the viewer will see a tree with coin-tipped branches; a tea brick made of pressed tea leaves mixed with ox blood and flavored with soot, which could be divided and spent or brewed to yield a medicinal drink; and porcelain-like shells, once valued as currency for trade among nations and prized as amulets as well. Closer in concept to conventional coins are the miniature replicas of weapons and farming tools of ancient China. Such pieces were assigned values and, unlike many other pre-coinage monies, had no use other than as media of exchange.

The rarest of the specimens are to be found in the exhibits that display the museum's collection of foreign coins, a collection that covers a span of more than 2,000 years and represents cultures as dissimilar as those of Judea and ancient Rome. Among the more interesting from the standpoint of the history of money are several that represent landmarks in the development of the conventional coin: a stater of Croesus, a sixth-century-B.C. coin minted in the Kingdom of Lydia, the birthplace of coinage; a tetradrachm of Athens, the first coin with a full design on each side; a guldiner of the Austrian Tyrol, the first dollar-size silver coin and one of the first coins to show the year of issue.

Central to the main objective of the museum are the twelve exhibits that tell the story of the monies of our own land. Graphics and brief explanatory texts carry the story line; specimens—grouped according to the period or the significant event to which they were most closely linked—illustrate the theme. For example, a portrayal of Martha and George Washington inspecting the first United States coins and a brief discussion of the establishment of the first United States Mint provide the historical framework for the display of the earliest Mint issues. In like manner, a montage depicting banking conditions in the 1811-1860 period and mention of the influence of public and private opinion on banking practices of the day set the stage for a display of notes of the Second Bank of the United States and of state banks during the second state-banking era. Adding dimension to the story of Colonial and United States monies as told by means of graphics, texts, and specimens are a number of money-related artifacts, including a reproduction of the 1725 Franklin printing press, the first automatic coin-weighting machine, and a gold box in which gold bullion bars were packed for transport in the early 1800s.

Of the special-interest items, and there are a number, perhaps the most notable—certainly the one museum visitors tend to gravitate toward first—is a gold bar, 999.8 fine and weighing 401.75 troy ounces. The gold bar display case is equipped with two digital readout panels, one showing the current price of gold and the other the current value of the bar. A silver bar, 999.75 fine and weighing 1,061.16 troy ounces, is similarly displayed.

The museum is open to the public, Monday through Friday from 9:30 a.m. to 3:30 p.m., without appointment and without charge.



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